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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

D AGOSTA, STEPHEN M

ART UNIT

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2617

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/533,191	<b>Applicant(s)</b> ANNIC, ETIENNE	
	<b>Examiner</b> Stephen M. D'Agosta	<b>Art Unit</b> 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 25-41 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 34-41 is/are allowed.
- 6) ☒ Claim(s) 25-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

1. The modified drawing is accepted. Thank you.
2. The IDS art is accepted and the form has been signed. Thank you.
3. A new rejection is found below. The examiner notes that the phrase (eg. in claim 1) regarding "setting up at least one additional connection" must be given its broadest reasonable interpretation. The claim does not empirically define what type of connection (eg. physical or virtual) and the specification does discuss multiple PDP context "connections" being made between mobile and network. The examiner puts forth new art which teaches multiple connections (eg. virtual PDP Context connections) between mobile and network.
4. As a side note, the connection between a mobile user and network/server has different layers (eg. network and application layers). Meaning, one skilled understands that a mobile device must authenticate/register with the network side (eg. HLR, DHCP, DNS servers) and then again with the internal "application" side (eg. Microsoft login and password). Hence the use of application and domain name servers are well known and virtually inherent in most of today's complex network designs.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 25-27 and 30-33** rejected under 35 U.S.C. 103(a) as being unpatentable over Shi et al. GB-2366705 and further in view of Viola et al. US 6,961,322 and {3GPP TS23.060 v3.8.0 or Uskela US2003/0026232 or Hurtta US 2004/012723} ~~Shobatake et al. US 6,654,607.~~

As per **claims 25 and 30-33**, Shi teaches a system for managing access from a plurality of communications networks to a mobile terminal connected to a mobile telecommunications network (figure 1 shows mobile which accesses voice, data networks – page 7, L5-20 teaches mobile or host initiated), wherein said system is configured to set up at least one connection from at least one of said communications networks to said mobile terminal (figure 1 shows connections between mobile and voice/data networks – see page 6, L20-27 teaching different services/networks too) after said mobile terminal has been identified in at least one address assignment server (or Radius) to which said communications network will establish said connection (figure 2 shows mappings while page 11, L21 to page 12, L17 teaches mapping MS/DNS names, also see page 12, L27-34 which teaches using an alternate mapping of IMSI to IP) , after checking to determine whether a user address of said mobile terminal (figure 2, and pages 11-12 discussed above will verify existence of a user address), after verifying the accessibility to said mobile telecommunications network (page 5, L5-12 teaches adding hosts/terminals to the DNS server which reads on verifying accessibility, also see page 7, L12-25 teaches use of DHCP to give/authorize addresses),

**but is silent on** an additional connection and after the mobile has sent a first command message to request identification of said mobile from an application server to at least one DNS server disposed in said communication network, after said mobile has

after verifying the authorization for receiving incoming calls given by the user of said mobile terminal identified for accessing said communications network.

Viola teaches a mobile device using a PDP Context connections to application and DNS servers (Abstract, figures 1-3). Note that figure 3 explicitly shows the connection between mobile, gateway, DNS and Application server.

The concept of a mobile using multiple “links” (eg. multiple PDP Contexts) is known and put forth in various pieces of art:

1. 3GPP document (page 135, 4<sup>th</sup> Para from top):

“...**When multiple PDP contexts exist for the same PDP address** of an MS, the GGSN routes downlink N-PDUs to the different GTP tunnels based on the TFTs assigned to the PDP contexts. Upon reception of a PDP PDU, the GGSN evaluates for a match, first the packet filter amongst all TFTs that has the smallest evaluation precedence index and, in case no match is found, proceeds with the evaluation of packet filters in increasing order of their evaluation precedence index. This procedure shall be executed until a match is found, in which case the N-PDU is tunnelled to the SGSN via the PDP context that is associated with the Tb'T of the matching packet filter. If no match is found, the N-PDU shall be sent via the PDP context that does not have a TFT assigned to it; if all PDP contexts have a TFT assigned, the GGSN shall silently discard the PDP PDU...”

2. Hurttä teaches establishing multiple connections (eg. PDP contexts) between a mobile user and the network (Abstract, figures).

3. Uskela teaches that a mobile can have more than one PDP context/connection (see Para #25). Furthermore, Uskela also teaches generic authentication (see Para #24).

The examiner notes that Shobatake has been removed since it was used primarily as a teaching reference. The examiner notes that authorization and registration are inherently used in cellular networks to guard against unwanted usage, cloning and/or malicious attacks.

~~Shobatake teaches generic mobile/cellular networks (see figures 1 and 3) and communications (eg. voice/data) and the use of security authorization (eg. AAA) as well as connections to/from DHCP and Domain Name Servers:~~

~~"..Varieties of mobile communication protocols are available including cellular, mobile IP, **DHCP/DNS** and SIP. While the protocols vary in how they function, each implementation of the protocol needs to support standard functions including location registration, location resolution, authentication, authorization, and accounting. Location registration relates to a mobile terminal announcing and receiving confirmation of its location within a network or platform. Location resolution relates to the determination of where a mobile terminal is in a network. Authentication relates to a function of a network determining whether a certain mobile user is a confirmed user of a network through interactions with at least one database. Authorization relates to a function of a network determining whether a certain mobile user is allowed to use a service of the network through interactions with at least one database. Accounting relates to a function of a network monitoring and assessing fees to a certain mobile terminal. Authentication, authorization, and accounting are referred to generally as "AAA" functions. In general, location registration occurs at the power-on phase of a terminal and during the handoff of a terminal between sites in a network. At the same time, authentication may be performed. Location resolution generally occurs when a first terminal attempts to set up a communication channel with a second terminal. C1, L19-40~~

It would have been obvious to one skilled in the art at the time of the invention to modify Shi, such that additional connections can be provided as well as links to/from app/DNS server after verifying the authorization for receiving incoming calls given by the user of said mobile terminal identified for accessing said communications network, to provide means for supporting basic network functions (such as DNS and application connections) and security functions (via AAA servers) so that multiple PDP context connections can be established (eg. for different rates, QoS, etc.).

As per **claim 26**, the combo teaches claim 25, comprising at least one user address search interface (32) situated in said communications network (20, 21,22) and adapted to assign said user address to said mobile terminal (10), after said check on the existence of a user address, on the basis of data from a first command message received from at least one domain name server (31) situated in said communications network (Shi teaches DNS and DHCP servers situated in the network and supporting determining/assigning user addresses/domain names).

As per **claim 27**, the combo teaches claim 25, wherein said system comprises at least one incoming call management interface (34) connected to said address assignment server (33) situated in said communications network (20, 21,22) and adapted to assign at least one network address to said mobile terminal (10) after processing of said user address on the basis of data from a second command message received from said user address search interface (Shi teaches a mobile user connected to a mobile network, eg. BTS/BSC/MS, whereby any/all in/outbound calls are routed to the mobile based on either it's IMSI and/or TCP/IP Address).

**Claims 28-29** rejected under 35 U.S.C. 103(a) as being unpatentable over Shi/Viola/{3GPP or Uskela or Hurtta} and further in view of Shobatake et al. US 6,654,607

As per **claim 28**, the combo teaches claim 25, **but is silent on** comprising at least one access control interface (35) connected to said network address assignment server of said communications network and adapted to verify said user address of said mobile terminal on the basis of data from a third command message received from said incoming call request management interface.

Shobatake teaches using AAA authentication servers/services to determine if a call should be connected to a user:

"..Varieties of mobile communication protocols are available including cellular, mobile IP, DHCP/DNS and SIP. While

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the protocols vary in how they function, each implementation of the protocol needs to support standard functions including location registration, location resolution, authentication, authorization, and accounting. Location registration relates to a mobile terminal announcing and receiving confirmation of its location within a network or platform. Location resolution relates to the determination of where a mobile terminal is in a network. Authentication relates to a function of a network determining whether a certain mobile user is a confirmed user of a network through interactions with at least one database. Authorization relates to a function of a network determining whether a certain mobile user is allowed to use a service of the network through interactions with at least one database. C1, L19-40

It would have been obvious to one skilled in the art at the time of the invention to modify the combo, such that at least one access control interface connected to said network address assignment server of said communications network and adapted to verify said user address of said mobile terminal on the basis of data from a third command message received from said incoming call request management interface, to provide means for supporting security measures (eg. AAA servers) which verify the user and any addresses being used or to be assigned.

As per **claim 29**, the combo teaches claim 25, **but is silent on** wherein said system comprises at least one access authorization interface (14) connected to at least one home location register (13) of said mobile telecommunications network and adapted to verify said network address after processing of said user address of said mobile terminal (10) on the basis of data from a fourth command message received from said access control interface (35).

Shobatake teaches using AAA authentication servers/services within the cellular network which inherently interacts with HLR/VLR components to verify users:

"..Varieties of mobile communication protocols are available including cellular, mobile IP, DHCP/DNS and SIP. While the protocols vary in how they function, each implementation of the protocol needs to support standard functions including location registration, location resolution, authentication, authorization, and accounting. Location registration relates to



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a mobile terminal announcing and receiving confirmation of its location within a network or platform. Location resolution relates to the determination of where a mobile terminal is in a network. Authentication relates to a function of a network determining whether a certain mobile user is a confirmed user of a network through interactions with at least one database. Authorization relates to a function of a network determining whether a certain mobile user is allowed to use a service of the network through interactions with at least one database. C1, L19-40

It would have been obvious to one skilled in the art at the time of the invention to modify the combo, such that wherein said system comprises at least one access authorization interface connected to at least one home location register of said mobile telecommunications network and adapted to verify said network address after processing of said user address of said mobile terminal (10) on the basis of data from a fourth command message received from said access control interface, to provide means for interfacing with cellular network components for supporting basic security checks (eg. via AAA servers).

### ***Allowable Subject Matter***

**Claims 34-41 (previously) allowed.**

The prior art of record does not teach the highly detailed designs of claim 34:

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 571-272-7862. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Stephen M. D'Agosta/  
Primary Examiner, Art Unit 2617